

September 14, 1989



Law and Legislation Committee

Honorable Members in Session:

SUBJECT: Proposed Clean Air Act Amendments: H.R. 2323 (Waxman), H.R. 99 (Swift) and President Bush's Proposal.

SUMMARY

Three smog bills, H.R. 2323 (Waxman), H.R. 99 (Swift) and President Bush's proposal have been introduced into Congress this year to amend the federal Clean Air Act. The Senate's proposed amendments to the Clean Air Act are not available at this time.

H.R. 2323 differs from H.R. 99 and Bush's proposal in three important areas: auto emission standards, useful life of emission controls and evaporation. H.R. 2323 would require significantly stricter standards in these areas than either H.R. 99 or Bush's proposal. Other differences between these three smog bills are in the areas of ozone, carbon monoxide, particulate matter (pm 10) and alternative fuel vehicles.

BACKGROUND INFORMATION

The 1970 federal Clean Air Act requires cities to comply with national ambient air quality standards for ozone and carbon monoxide by December 31, 1987. The Sacramento Air Quality Maintenance Area (AQMA) failed to comply with the National Ambient Air Quality Standards by deadline. In 1988, Congress delayed Environmental Protection Agency (EPA) enforcement of this deadline until August 31, 1988 to allow Congress time to reauthorize the Clean Air Act. However, Congress was unable to rewrite the 1970 Clean Air Act prior to the end of the congressional session in October 1988.

As a result of not meeting this deadline, EPA in May, 1989 notified the Governor and air quality planning agencies that the State Implementation Plan (SIP) was inadequate to achieve the national air quality standards and must be revised. This revision would also require changes to Sacramento's 1982 Regional Air Quality Plan.

In June 1989, Mike Eaton sent a letter to the City requesting City endorsement of H.R. 2323. See Exhibit A. Since this letter, President Bush has also introduced amendments to the Clean Air Act: H.R. 3030 (Dingell) and S.1490 (Chafee). At the time this report was prepared, staff had only received an EPA summary of Bush's proposal. Subsequently, staff received a copy of S.1490, but has not had the opportunity to review it.

H.R. 2323 (Waxman), H.R. (Swift) and President Bush's Proposal

The following sections summarize these three smog bills as they relate to the following topics: ozone nonattainment, carbon monoxide nonattainment, PM 10

4

nonattainment emissions standards for motor vehicles, useful life of emissions standards, running losses and evaporation and alternative fuels. The summary of President Bush's proposal is based upon an EPA summary of H.R. 3030 (Dingell) and S.1490 (Chafee).

OZONE NONATTAINMENT

H.R. 2323 (Waxman)

H.R. 2323 proposes four classifications for ozone nonattainment: Moderate, Serious, Severe and Extreme. The percentage the national primary ambient air quality standard can be exceeded is: not greater than 20% for the moderate area, more than 20% but not more than 50% for the serious area, more than 50% but not more than 100% for the severe area and more than 100% for the extreme area. According to the Sacramento Metropolitan Air Quality Management District (SMAQMD), Sacramento would probably be classified as a severe area. This means that the Sacramento area if classified as a severe area, exceeds the federal ozone standard by more than 50% but less than 100 percent. Severe areas would have 12 additional years to attain this standard.

To evaluate progress in working toward achieving the ozone standard, this legislation would require EPA to establish four year volatile organic compounds and oxides of nitrogen emission reduction milestones for each ozone nonattainment area. These milestones would require percentage reductions in these emissions at the rate of a 20% reduction after four years for serious, severe or extreme areas. For severe and extreme areas, additional emission reduction milestones would be established by EPA. Additional emission reduction milestones for severe areas would include a minimum 50 percent reduction in volatile organic compounds emissions.

Sanctions apply for failure to adopt or implement an adequate plan. An adequate plan is generally defined as one which meets the (1) emission reduction targets (2) milestone requirements and (3) national ozone standard by the required attainment date and maintains this standard for 20 years. Sanctions include the loss of federal highway, clean water and clean air funds to the State as well as construction bans. These construction bans would apply as part of the new source review requirements for stationary sources emitting 10 tons per year of volatile organic compounds or oxides of nitrogen in severe areas. More specific guidelines will need to be developed to understand more completely how these sanctions would be applied.

No sanctions apply for areas that adopt and implement an approved plan, but fail to attain the standard. Sanctions would apply only if a required compliance strategy or plan revision is not submitted by the required date or is not implemented.

H.R. 99 (Swift)

This bill proposes four nonattainment area classifications: Moderate Class 1, Moderate Class 2, Serious and Severe. The SMAQMD has not determined how Sacramento would be classified. These classifications are based upon the design value for ozone in an area exceeding the national primary ambient air quality

ozone standard as of December 31, 1987. The design value for ozone represents a numerical standard based upon certain methodologies used to calculate this standard. A standard attainment date for each of the four classifications and a percentage the ozone design value can be exceeded is described below.

The Moderate Class 1 areas would be allowed to exceed the ozone design value by no more than 15% and must meet the ozone standard within three years following enactment of H.R. 99.

The Moderate Class 2 areas would be allowed to exceed the ozone design value by more than 15% but not more than 25% and must meet the ozone standard within three years of the State Implementation Plan revision approval, but not later than December 31, 1995.

The Serious areas would be allowed to exceed the ozone design value by more than 25% but not more than 50%. These areas must meet the ozone standard within five years of the State Implementation Plan revision approval, but not later than December 31, 1997.

The Severe areas would be allowed to exceed the ozone design value by more than 50%, with no upper limit defined. These areas must meet the ozone standard within 13 years of the State Implementation Plan revision approval, but not later than December 31, 2005.

Included in H.R. 99 are sanctions for ozone nonattainment areas requiring a construction ban and prohibiting new drinking water hookups if no emissions inventory and revised State Implementation Plan are submitted as required.

President Bush's Proposal

Ozone nonattainment areas would be subject to four classifications with required design values and attainment dates.

For Marginal areas, an ozone design value of 0.13 parts per million (ppm) is required to be met by December 31, 1995. Moderate areas must meet a 0.14 - 0.15 ppm ozone design value by December 12, 1995. Serious areas would be required to comply with a 0.16-0.18 ppm by December 31, 2000. Severe areas must meet an ozone design value of 0.19 ppm and above as quickly as practicable but not later than December 31, 2010. According to SMAQMD, Sacramento would probably be classified as a Serious area.

EPA may apply sanctions such as moratorium on highway projects applicable to (1) and (2) below or a ban on drinking water hookups or require a federal implementation plan (FIP) if (1) the state fails to submit one or more required elements; (2) EPA disapproves these elements; (3) state fails to make any other required submission; (4) any requirement of an approved plan is not being implemented.

CARBON MONOXIDE NONATTAINMENT

H.R. 2323 (Waxman)

Areas not meeting the national ambient air quality carbon monoxide (CO) standards would be classified into one of three categories based upon the percentage the standard is exceeded. For Moderate areas, the CO standard would be exceeded by not more than 30%. In Serious areas the CO standard would be exceeded more than 30%, but not more than 60%. Severe areas would exceed the CO standard more than 60%. The SMAQMD has not yet determined a nonattainment classification for Sacramento for carbon monoxide under H.R. 2323.

Similar to requirements for ozone nonattainment areas, this bill establishes milestones for carbon monoxide attainment based on the area classification designation. Moderate areas would have four years after approval of H.R. 99 to achieve a to be determined CO concentration milestone. Serious and Severe areas would have 8 and 12 years respectively to achieve this CO concentration milestone. Economic sanctions and plan requirements as discussed under the ozone nonattainment section would also apply here.

H.R. 99 (Swift)

H.R. 99 proposes three nonattainment area classifications: Moderate 1 and 2 and Severe. These classifications are based upon the amount the design value for carbon monoxide exceeds the national primary ambient air quality standard for carbon monoxide as of December 31, 1987. The SMAQMD has not yet determined a CO nonattainment classification under H.R. 99 for Sacramento.

The Moderate Class I areas would exceed the CO standard by not more than 10% and would be required to meet the CO standard within three years following enactment of H.R. 99. Moderate Class II areas would exceed the CO standard by more than 10%. Class II areas would be required to meet the CO standard not later than December 31, 1995. Severe areas exceed the CO standard by 25% and would be required to attain the CO standard by December 31, 2001.

Sanctions including prohibiting new drinking water hookups apply if: (1) state fails to implement measures in the state implementation plan; or (2) state fails to achieve annual interim reductions in emissions as specified in state implementation plan.

President Bush's Proposal

Three nonattainment area classifications are proposed: Moderate 1 and 2 and Severe. These classifications are based upon certain design values for carbon monoxide. According to SMAQMD, Sacramento would probably be classified as a Moderate nonattainment area. For Moderate areas the allowed design value would be 9.5 - 16.4 ppm and the primary ambient air quality standard for CO would have to be attained by December 31, 1995. Serious areas are those having a design CO value of 16.5 ppm + and these areas would be required to attain the CO standard by December 31, 2000.

PARTICULATE MATTER (PM10)

4

H.R. 2323 (Waxman)

This is very small material (10 microns or less) composed of nitrates, sulfates and dust. These small particles can be directly emitted into the air as a by-product of fuel combustion and through chemical reactions. PM 10 can carry carcinogens and other toxic compounds which can adhere to particles which can enter the lungs.

Under H.R. 2323, EPA would divide PM 10 nonattainment areas into two classes, Serious and Severe based upon PM 10 pollution levels and time required to meet the standard. According to SMAQMD, Sacramento would probably be classified as a Serious area. For areas classified as Serious, they would have to attain the PM 10 standard within four years after enactment of H.R. 2323. Severe areas would have 8 years following enactment of H.R. 2323 to attain the PM 10 standard.

Areas failing to meet the attainment dates, must provide sufficient Best Available Control Measures as determined by EPA guidelines to achieve the standard by the deadline. Economic sanctions and plan requirements as discussed under the ozone nonattainment section of H.R. 2323 would also apply here.

H.R. 99 (Swift)

H.R. 99 does not address PM 10.

President Bush's Proposal

This legislation does not address PM 10.

Emission Standards For Motor Vehicles

California's New Vehicle Standards

California's current new passenger car vehicle emissions standards for 50,000 miles for model years 1989-94+ are as follows: nonmethane hydrocarbons 0.39 grams per mile (gpm), carbon monoxide 7.0 gpm and oxides of nitrogen 0.4 gpm.

H.R. 2323 (Waxman)

For passenger cars, two phases of tailpipe standards would be required of auto manufacturers. For the first phase the model year 1992 or 1993 autos must achieve the following emissions standards: hydrocarbons 0.25 gpm, (no standard specified for nonmethane hydrocarbons) nitrogen oxides 0.4 gpm, carbon monoxide 3.4 gpm, particulate matter 0.08 gpm. The second phase, applicable to model year 2000, passenger cars must achieve the following tailpipe emission standards: hydrocarbons 0.125 gpm, nitrogen oxides 0.2 gpm and carbon monoxide 1.7 gpm.

The above standards would apply for the full useful life of the passenger vehicle defined as 5 years or 50,000 miles under current law.

The Waxman standards for hydrocarbons and carbon monoxide for 1992-93 are approximately 64% and 50% respectively more stringent than California's currently adopted new vehicle standards.

4

H.R. 99 (Swift)

H.R. 99 proposes emission standards for nonmethane hydrocarbons (NMHC) and oxides of nitrogen for automobile gasoline motor vehicles for model years 1993+ as follows: NMHC 0.25 gpm, oxides of nitrogen 0.70 gpm. The nonmethane hydrocarbon standard for model years 1993+ is approximately 64% more stringent than California's currently adopted new vehicle standards. The oxides of nitrogen standard for model years 1993+ is the same for both California's current adopted new vehicle standards and H.R. 99's proposed emissions standard.

Each manufacturer of automobiles would be required to meet the above standards for at least 30 percent of the 1993 cars, 90 percent of the 1995 cars and 100 percent of the 1996+ cars. Exceptions to this requirement would apply to 70 percent of the 1993 cars and to 10 percent of the 1995 cars.

President Bush's Proposal

This section phases in tighter passenger car emission standards for nonmethane hydrocarbons and oxides of nitrogen and maintains the current standards for total hydrocarbons (as a cap on methane emissions) and carbon monoxide (CO). Forty and 80 percent of each automaker's 1993 and 1994 model year cars respectively and 100 percent of 1995 and later model year cars are required to meet a nonmethane hydrocarbon standard of 0.25 grams per vehicle mile (gpm) and an oxides of nitrogen standard of 0.70 grams per mile.

USEFUL LIFE OF EMISSION CONTROLS

H.R. 2323 (Waxman)

The federal test procedure used to certify autos as meeting EPA emissions standards would be required to be representative of real world driving conditions. Existing law does not require CO emissions to meet the requirements in cold weather. The useful life for emission control certification and recall would be 10 years or 100,000 miles.

H.R. 99 (Swift)

H.R. 99 does not require vehicles to comply with emissions standards for their entire life or require any changes to the current standard. The current standard for the useful life of emissions controls is five years or 50,000 miles.

President Bush's Proposal

Bush's proposal does not propose any amendments to the Clean Air Act concerning the life of emissions controls. The current standard is five years or 50,000 miles.

RUNNING LOSSES, EVAPORATION

H.R. 2323 (Waxman)

Running losses are defined as emissions from vehicles during operation in addition to tailpipe emissions. Evaporative emissions are emissions occurring

4

during sustained periods of nonuse. EPA would be required to develop Best Available Central Technology (BACT) for evaporative emissions from motor vehicles.

H.R. 99 (Swift)

This subject is not addressed in this legislation.

President Bush's Proposal

EPA would issue regulations within 18 months of the bill's enactment requiring reductions in evaporative emissions from all gasoline-fueled vehicles during operation (running losses) and sustained periods of nonuse.

ALTERNATIVE FUEL VEHICLES

H.R. 2323 (Waxman)

EPA would establish tailpipe standards for a to be determined percentage of new motor vehicles or categories of motor vehicles using clean alternative fuels such as ethanol, methanol propane and natural gas. EPA may require vehicles powered by clean fuels if necessary to achieve nonattainment area requirements.

H.R. 99 (Swift)

H.R. 99 would require Federal, State and local government vehicle fleets (15 or more passenger vans and light duty trucks) in a nonattainment area for ozone or carbon monoxide to require 30 percent of the fleet vehicles obtained in 1994 to use alternative fuels, require 50 percent of the fleet vehicles obtained during 1995 and 1996 to use alternative fuels and require 90 percent of the fleet vehicles obtained after 1996 to use alternative fuels.

President Bush's Proposal

Two programs are proposed to increase the use of clean fuel vehicles. The first program would require new buses operated in areas with a population greater than 1,000,000 to use clean fuels. The second program requires a certain number of cars and light duty trucks to operate on clean fuels.

STAFF COMMENTS

H.R. 2323 (Waxman)

H.R. 2323 provides needed emissions standards for cars, light and heavy duty trucks. These standards are needed to provide the necessary federal support to compliment California's efforts to reduce smog from automobile and other vehicles.

H.R. 2323 addresses two other important areas: evaporative losses during vehicle operation and sustained periods of nonuse and carbon monoxide emissions. Addressing evaporative losses, in conjunction with other types of emissions would provide a more comprehensive control of total automobile hydrocarbon emissions.

4-

Sanctions apply for failure to adopt or implement an adequate plan. An adequate plan is generally defined as one which meets the (1) emission reduction targets (2) milestone requirements and (3) national ozone standard by the required attainment date and maintains this standard for 20 years. Sanctions include the loss of federal highway, clean water and clean air funds to the State as well as construction bans. These construction bans would apply as part of the new source review requirements for stationary sources emitting 10 tons per year of volatile organic compounds or oxides of nitrogen in severe areas. More specific guidelines will need to be developed to understand more completely how these sanctions would be applied.

No sanctions apply for areas that adopt and implement an approved plan, but fail to attain the standard. Sanctions would apply only if the required date or is not implemented.

Staff recognize the recommendation to support H.R. 2323 does not include an endorsement of the entire bill. Due to staff time constraints only the following areas were evaluated: (1) ozone nonattainment, (2) carbon monoxide nonattainment, (3) PM 10 nonattainment, (4) emissions standards for motor vehicles, (5) useful life of emissions standards, (6) running losses and evaporation and (7) alternative fuels. Staff recommends these 7 key areas of H.R. 2323 be endorsed because these are the areas needing stronger federal support to control mobile emissions.

H.R. 99 (Swift)

H.R. 99 is not adequate to achieve clean air. It only requires small reductions in emissions from cars and light duty trucks and no reductions from heavy trucks or buses. Vehicles would not be required to comply with emission standards during the entire life of the vehicle.

H.R. 99 would require Federal, State and local government vehicle fleets (15 or more passenger vans and light duty trucks) in a nonattainment area for ozone or carbon monoxide to require 30 percent of the fleet vehicles obtained in 1994 to use alternative fuels. Require 50 percent of the fleet vehicles obtained during 1995 and 1996 to use alternative fuels and require 90 percent of the fleet vehicles obtained after 1996 to use alternative fuels.

Staff recommends not supporting H.R. 99 because it does not contain strict enough emissions standards necessary to support local air quality efforts.

President Bush's Proposal

Bush's plan to reduce smog will not help the Sacramento Area or other Ozone Nonattainment Areas in California. According to the State Air Resources Board, the President's proposed legislation would result in dirtier cars in California. Bush's bill would set lower overall limits for smog emissions than current federal law. Manufacturers would be required to meet this standard on average.

California's tailpipe standards apply only to new cars sold here. However, many cars in California are purchased out of state where less strict federal standards apply. Relaxing federal standards would not help California to reduce smog. Staff therefore recommends not supporting this proposal.

POLICY CONSIDERATIONS

H.R. 2323 is important in providing federal help to compliment the State's efforts to reduce vehicle emissions. Both the California Clean Air Act (AB 2595) and the Connelly legislation (AB 4355) provide the authority to air pollution control districts to develop programs to regulate vehicle emissions.

The City's General Plan and the North Natomas Community Plan contain various policies and requirements to reduce the auto's contribution to air pollution. H.R. 2323 would provide needed federal support for these general and community plan policies and requirements.

MBE/WBE CONSIDERATIONS

No impacts.

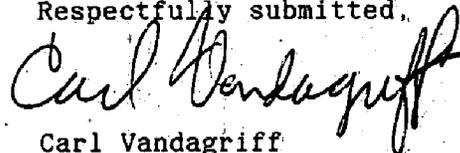
FINANCIAL INFORMATION

No financial impact identified at the present time.

RECOMMENDATIONS

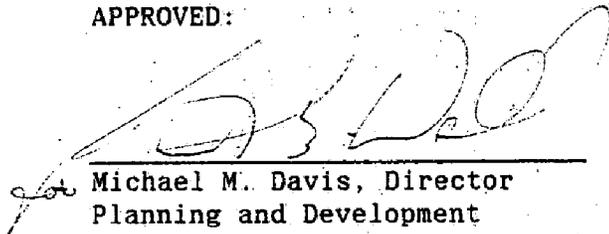
Recommend support of H.R. 2323 (Waxman).

Respectfully submitted,



Carl Vandagriff
Associate Planner

APPROVED:


Michael M. Davis, Director
Planning and Development

Contact person to
answer questions:

Carl Vandagriff
Associate Planner
449-5381

September 21, 1989
All Districts



SIERRA CLUB 730 Polk Street San Francisco, California 94109 415-776-2211

EXHIBIT A

4

June 3, 1989

David Martinez
City of Sacramento
915 "I" Street
Sacramento, CA 95814

CITY MANAGER'S OFFICE
RECEIVED
JUN 6 1989

Dear David:

Last week I had the privilege of representing the half million members of the Sierra Club before a subcommittee of the U.S. House of Representatives. The testimony I presented, on the two competing House Clean Air Act reauthorization bills, is attached.

When I accepted the Sierra Club Board of Director's invitation to chair the Club's national Clean Air Steering Committee, I did so with the hope that I could help in some small way to shape a bill that would help Sacramento deal effectively with its problem. I never dreamed the issues would be as starkly drawn as they were last week.

One of the House smog bills is authored by Congressman Henry Waxman of Los Angeles, Chair of the Subcommittee on Health and the Environment of the House Energy and Commerce Committee. The other is sponsored by a group of nine representatives allied with Congressman John Dingell of Detroit, Chair of Energy and Commerce.

The major difference between the two bills is the way in which they treat the automobile industry. Waxman's bill, H.R. 2323, would mandate two new rounds of emissions standards for motor vehicles - one in 1993 and the other in 1999. Under the bill, 1999 vehicle emissions would be about one-fourth the current level for key pollutants. The competing bill, H.R. 99, would on the other hand freeze vehicle emissions at about the current level for at least the next decade - making it much more difficult for areas like Sacramento to attain the federal standards in the foreseeable future.

The Sierra Club has made passage of H.R. 2323 - with strong new vehicle standards - a national priority and I will be making at least monthly trips to Washington to confer with our lobbyists about the

4

progress of the legislation. H.R. 2323 has over 100 co-sponsors at this point, and Henry Waxman has indicated that he will mount a major battle on behalf of the bill. Even so, we expect the battle to be a close one in both the Senate and the House.

With H.R. 2323 and a continued commitment to solving the air pollution problem, Sacramento will be able to continue the robust economic growth we have experienced and achieve healthy air quality in the foreseeable future. Without H.R. 2323 or an equivalent bill, we face increasingly smoggy skies and some very painful choices. I'm sure you agree with me that passage of H.R. 2323 is a high priority for this community.

You can help in this effort by seeking an endorsement of H.R. 2323 by your organization. Letters of support should be sent to Congressman Henry Waxman, U.S. House of Representatives, Washington, DC 20515. You should also thank Congressmen Fazio and Matsui for their early co-sponsorship of the bill.

I have enclosed a fact sheet on H.R. 2323. If you have any questions about the legislative battle, or suggestions for me, please contact me at 447-6099.

Sincerely,



Michael R. Eaton
Chair, Clean Air Steering
Committee

Enclosures.

Please respond to:

1823 11th Street
Sacramento, CA 95814

SIERRA
CLUB



408 C Street N.E., Washington, D.C. 20002 (202) 547-1141

Prepared remarks of Michael R. Eaton, Chairman,
Clean Air Campaign on behalf of Sierra Club before
the U.S. House of Representatives Subcommittee on
Health and the Environment Committee on Energy
and Commerce on the

Clean Air Restoration Act of 1989 — HR 2323.

May 23, 1989

My name is Mike Eaton and I am speaking to you today as Chair of the Sierra Club's National Clean Air Campaign, on behalf of the Club's half-million members. I live in Sacramento, California, and have been extensively involved in air pollution planning efforts as a concerned citizen for a number of years.

SACRAMENTO'S AIR POLLUTION PROBLEMS ARE TYPICAL

Sacramento continues to suffer from unacceptably high levels of ozone pollution. According to the Environmental Protection Agency's (EPA) ozone data for 1987 (the last year of official data), Sacramento had a design value ozone reading of .17 ppm, 40 percent higher than the federal health standard. EPA data indicates that there were ozone violations on 14 different days in 1987. In 1988, there were violations of the federal ozone health standard on 24 different days in Sacramento, according to a study by the U.S. Public Interest Research Group. Violations of the .10 ppm state ozone standard (the level many scientists believe should be established to protect public health from lung damage) occur on 80 days or more per year. Imagine holding your breath for at least an hour per day for two or three weeks every summer.

There are a large number of people who are highly vulnerable to harm from ozone pollution in Sacramento. According to a the American Lung Association study "Breath In Danger," there are more than a half-million children, senior citizens, and people suffering from asthma who are exposed to Sacramento's high ozone levels. In addition to the acute threat posed by high ozone levels, the large number of days with violations is particularly troubling because of the evidence of the harm due to repeated exposure to high ozone levels. (Evidence presented by distinguished health professionals at a hearing before this Subcommittee on February 28, 1989.)

Sacramento is by no means unique. Many other cities across the nation are suffering from similar levels of ozone pollution. According to EPA's preliminary ozone design value data for 1988, a number of cities had ozone levels of .16 to .17 last year, similar to Sacramento. These cities include: Atlanta; Louisville; Chicago; Providence; El Paso, Texas; Sheboygen, Wisconsin; and Springfield, Massachusetts. In Sacramento, emissions from cars, buses, trucks, and their fuels comprise at least 60 percent of the ozone precursors, a level typical of many polluted sunbelt cities without heavy industry.

4

Nationwide, 150 million Americans live in cities which violate the health standard for ozone and/or carbon monoxide (CO). During the smoggy summer of 1988, many cities suffered from a record number of unhealthy days and peak levels of ozone. Ozone causes lung function impairment, and exacerbates respiratory ailments. Dr. Thomas Godar, president of the American Lung Association, testified before this Subcommittee in February that "ozone can cause immediate short-term changes in lung function." CO aggravates heart and circulatory diseases. It can also impair fetal development. Children, senior citizens, and pregnant woman are most vulnerable to harm from air pollution. But Dr. Godar told the Subcommittee that exposure to ozone can also cause increased symptoms of respiratory ailments "in healthy adults and children who exercise moderately or heavily during periods of elevated ozone concentrations."

MOST CITIES NEED FEDERAL HELP TO CONTINUE PROGRESS

Sacramento, like many medium-sized cities across the country, has a serious ozone air pollution problem. Sacramento's peak ozone levels place it within the dirtiest dozen of U.S. cities. Most of Sacramento's ozone is caused by vehicle emissions. The Sacramento community -- business groups, political leaders, public health advocates, and environmental groups -- is fully aware of its air pollution problem and determined to do something about it. In the past two years alone, Sacramento has imposed a sales tax increase to fund transit improvements, launched a voluntary, multi-million dollar update of its Air Quality Plan (SIP), and enacted a tough, mandatory transportation systems management, or ride-sharing, ordinance.

The sales tax increase, approved by the voters in response to strong political leadership, is funding increased transit operations and will be used to support extensions of Sacramento's existing light rail system. These investments have already paid off in substantially increased ridership on Sacramento's light rail and bus system.

The Air Quality Plan Update is funded by local governments in the Sacramento region at a cost of over \$2 million. When completed, Sacramento will have an accurate and complete understanding of regional meteorology and other factors contributing to ozone formation. We will also have a computer model capable of evaluating the impact of alternative transportation system and land use decisions on future ozone levels. Sacramento's trip reduction ordinance, adopted earlier this year, requires that 35 percent of commute trips be made by other than single occupant vehicles by the early 1990's.

These actions are by no means the only ones being taken to combat Sacramento's smog. A new local ordinance requires affordable housing to be located near new employment centers. A major public education program is being developed which will educate the general public on the nature, causes, and personal opportunities to contribute to solutions to the air pollution problem. And our Metropolitan Chamber of Commerce, spurred in part by fears that continued high air pollution levels will undercut continued economic growth, has made solving the air pollution problem its number one priority.

Together, these activities reflect a dramatic turn-around from the situation of only a few years ago. Achieving this level of focus on the smog problem has not been an easy process, and it would not have happened without the federal Clean Air Act. Among the contributing factors were citizens' suits in both state and federal courts, constructive pressure from EPA, and enlightened, aggressive leadership in both the business and political communities. Because of the nature of Sacramento's smog problem, a stronger and clearer federal involvement is essential to continued momentum.

CLEAN AIR BILL NEEDS MOTOR VEHICLE CONTROLS

Motor Vehicle Emissions Reduction

Nationwide, motor vehicles remain the dominant source of urban smog. EPA estimates that transportation sources were responsible for 70 percent of the total carbon monoxide emissions, 34 percent of the hydrocarbon emissions (HC), and 45 percent of nitrogen oxide (NOx) emissions nationwide in 1985. The pollution levels from motor vehicles are almost the same proportion of the total emission levels (except for lead) that they contributed before the emissions controls were first required by the Clean Air Act of 1970. And these emissions will only increase as more cars travel more miles. EPA estimates that total number of motor vehicle miles traveled will increase by 33 percent between 1985 and the year 2000, and nearly DOUBLE between 1985 and 2010.

Even if we can dampen this tremendous projected increase in vehicle miles traveled through improved linkages between the air pollution and land use/transportation planning processes (discussed below), we need steep reductions in motor vehicle emissions in the 1990's and a second round of reductions in the late 1990's to make progress along the road to clean air.

4

Stricter motor vehicle emissions standards are essential for achieving clean air in every polluted city, even in California, which already benefits from stricter emissions standards. In California, higher emitting vehicles from out of state account for 20 percent of automobile and 50 percent of truck traffic.

The technology for controlling emissions from automobiles has been dramatically improving, driven by a combination of tougher regulatory requirements and advances in basic science. Allied Signal Corporation reports: "Beginning about 1984 and extending to the present, there has been a period of virtual technology explosion, [including] rapid and sometimes dramatic durability performance of traditional three-way control catalytic technologies."

The fewer reductions Congress chooses to require from motor vehicles and their fuels, the greater the reductions that must be required from industrial facilities in order to meet the air health standards. Alternative fuels such as natural gas, ethanol, and methanol hold promise for reducing emissions from motor vehicles some time in the next decade, but they are a complementary strategy, not a substitute for significant motor vehicle emissions reductions.

Transportation Planning

A clear linkage between transportation, land use, and air quality planning is critical. Historically, planning activities related to transportation and air quality have proceeded along relatively separate avenues despite federal policies and programs intended to more fully integrate all aspects of regional planning. The new Clean Air Act should clearly set forth requirements for integrated air quality and transportation planning.

Transportation and air pollution planning linkages are important not only for reducing ground-level air pollution but for dealing with global warming as well. Because it accounts for 31 percent of U.S. carbon emissions, and is growing at 2.5 percent per year, the transportation sector is both the largest single source, and the fastest growing source, of carbon combustion in the U.S. Unless the transportation sector provides a fair share of CO₂ emission reductions, any reductions made in other sectors will be more than offset by the transportation sector.

In summary, new initiatives are needed to both reduce the rising trend of vehicle use by offering less polluting transportation alternatives and encouraging more efficient community designs, and to reduce the emis-

4

sions from new vehicles. Both approaches are needed to meet clean air goals over the long term.

Deadlines: Clean Air By the 21st Century

We believe that Americans have a right to breath safe, clean air. Every year of delay deprives millions of Americans of this right by exposing them to unhealthy levels of ozone and carbon monoxide. Therefore, the air pollution program enacted by the 101st Congress must require EPA, states, cities, and industry to achieve the necessary reductions as promptly as possible. Interim, enforceable milestones are essential to ensure progress towards attainment of the health standards during the deadline extension. There are no technological or economic barriers to achieving the ozone and carbon monoxide standard in every city by the year 2000 -- except for Los Angeles, which need not be far behind.

Sanctions Needed to Encourage Attainment

An essential element of an effective air pollution program is incentives to attain the standards by the compliance deadline. Cities should be faced with sanctions or contingency measures for failure to meet the health standards. These measures should be related to the goal of reducing pollution, and create an incentive for government and industry to develop and implement cleanup plans which will actually achieve clean air.

Just as you and I are held accountable for achieving goals at our jobs, cities and polluting industries must be held accountable for their performance as well as for their planning. Interim reduction requirements will also help encourage the development and implementation of adequate plans.

Federal Clean Up Requirements

Finally, state and local governments need federal leadership and support to implement air pollution control measures. Requiring vapor recovery systems on gasoline pumps, reducing gasoline volatility, developing control technique guidelines for industry, and limiting emissions from solvents and coatings should be undertaken by the federal government. The states could then concentrate its efforts on developing and implementing local controls necessary to meet the standards.

H.R. 2323: ON THE RIGHT ROAD TO CLEAN AIR

The Clean Air Restoration Act, H.R. 2323, should enable us to achieve clean air in the United States. The bill would dramatically reduce emissions from cars, buses, trucks, and their fuels. It gives cities deadline extensions to meet standards, while providing a strengthened framework for local, state, and federal cooperation to achieve healthy air. Mr. Chairman, you and Representative Lewis deserve great credit for sponsoring this essential environmental and public health bill.

Motor Vehicle Reduction Provisions Are an Essential Ingredient

Title V of H.R. 2323 would dramatically reduce emissions in a timely fashion. Reductions in nitrogen oxide, hydrocarbon, carbon monoxide, and particulate emissions from cars and light and heavy duty trucks would be required in 1993 and 1999. The first round would require that cars nationwide meet emissions standards similar to California's requirements. The cost of these automobile tailpipe emission controls has been estimated at \$55 to \$155 per new car -- about the price of a hubcap on a new car.

Many cars are already capable of meeting the first phase standards required by H.R. 2323. For instance, EPA's certification data revealed that 65 percent of 1988 cars had nitrogen oxide emissions of .4 grams per mile (gpm), the standard that would be required in 1993. The first phase standards in H.R. 2323 are both technically and economically feasible.

The second round of emissions standards would require automobile manufacturers to reinvigorate their efforts to produce low-emitting cars. Although 30 percent of 1988 model cars certified at the .2 NOx standard required by H.R. 2323 for model year 2000 cars, this and other second phase requirements would be "technology forcing." Manufacturers would have to dramatically improve existing or develop new emissions control technology. Nonetheless, history tells us that meeting tough new standards can be achieved without major cost or disruption to the industry. We will not achieve healthful air without building significantly cleaner cars.

Also critical to achieving clean air is stricter tailpipe emission standards for trucks, buses, other heavy duty vehicles, and motorcycles, as required by H.R. 2323. Emissions from trucks are significant portion of air pollution loadings, and must be reduced.

H.R. 2323 includes two essential improvements over current law which would reduce evaporative losses and carbon monoxide emissions from autos. Evaporative emissions of hydrocarbons are an overlooked -- yet significant -- portion of total automobile hydrocarbon emissions, particularly

during hot summer weather. The cold temperature certification requirement for CO will ensure that cars will actually meet CO emissions requirements in cold weather. The cold start provision is essential for reducing CO levels in cities such as Denver, Albuquerque, Provo, and El Paso.

The Sierra Club supports the other provisions in Title V of H.R. 2323 to reduce emissions from motor vehicles and their fuel. On board canisters would economically and significantly reduce emissions from refueling systems. General Motors estimated in 1986 that canisters would cost only \$19-\$43 per new car -- about the price of an ashtray. Reducing gasoline volatility is another cost-effective method of reducing hydrocarbon emissions. Reduced volatility will also help reduce the risk of after crash fires, according to a study by the Center for Auto Safety.

The motor vehicle testing and certification provision would help ensure that motor vehicles comply with their standards in use, as well as during testing, by requiring that test procedures resemble real world driving conditions. The prohibition on fleet averaging will also help ensure that every car on the road meets the emissions requirements. We also support the extension of the "full useful life" of the car to 10 years or 100,000 miles for recall and certification. We would like to see the full useful life extended to warranties as well because it would provide warranty protection for pollution control equipment during the entire life of the car. This would significantly reduce emissions due to better maintenance and improved performance of the pollution control system.

Deadlines Should Be Shortened and Sanctions Added to H.R. 2323

The bill would classify polluted cities into moderate, serious, severe and extreme areas. It would allow cities 4, 8, 12, and 16 years, respectively, to meet clean air health standards. These deadlines should be shortened so that all cities are required to have clean air by the year 2000, except for Los Angeles, which shouldn't be far behind. This is particularly true for areas violating the CO standard.

H.R. 2323 would require nonattainment cities to meet interim milestones to ensure adequate progress towards attainment. This provision will provide a benchmark to measure cities' progress towards clean air. We are concerned, however, that the bill lacks adequate sanctions or contingencies for failure to meet milestones or achieve attainment by the deadline. Such contingency measures should be added to ensure that the initial plan is thorough enough to solve the problem. Without such measures, we risk a repeat of a pattern of inadequate plans and measures, poor implementation,

4

eventual nonattainment, and deadline extensions that we have witnessed under the current Clean Air Act.

Some SMART Requirements Should Be Strengthened

H.R. 2323 would require areas to adopt various "Special Measures for Achievement of Reduction Targets" (SMART measures), depending on the severity of the problem and the length of the deadline extension. The list of SMART measures must be adequate to both achieve attainment by the end of the deadline extension, and ensure that these areas remain in attainment once the health standards are met. Moderate areas should be required to implement an enhanced auto inspection and maintenance (I/M) program to make sure that autos are achieving the full reductions required by the motor vehicle program. EPA estimated that an enhanced I/M program would reduce emissions by 7 percent, and cost only \$6.48 per car.

Serious, severe, and extreme areas would be required by H.R. 2323 to implement Stage II vapor recovery on large gas stations. Independent retailers selling less than 50,000 gallons a month would be exempt from this requirement. This exemption allows too many gasoline stations to avoid controls. California does not allow such an exemption, and we urge that it be removed. Stage II controls are a cost-effective method of reducing hydrocarbon emissions from refueling. St. Louis, Missouri, the latest city to implement Stage II controls, determined that it cost only \$650 - \$750 per ton of hydrocarbons removed. Stage II controls should be required at all gasoline stations in serious, severe, and extreme areas.

Particulate Program is a Good Start, But Needs Strengthening

H.R. 2323 includes provisions to achieve attainment of the small particulate matter (PM 10) health standards. This provision would require that areas violating the PM 10 standard would receive 4 or 8 years to meet the standard. H.R. 2323 recognizes the importance of eliminating particulate pollution, and this program provides a good foundation for addressing the problem. Additional clean up requirements are needed to ensure attainment of the PM 10 standard. In addition, contingency measures are needed for failure to attain the standards.

H.R. 99: WRONG TURN AWAY FROM CLEAN AIR

In stark contrast to H.R. 2323, H.R. 99 is inadequate to achieve clean air. It lacks badly needed controls on cars, buses, and trucks, requires too few pollution controls on other sources, and creates long delays in the pro-

gram to achieve the ozone and carbon monoxide health standards. H.R. 99 would not attempt to reduce particulate pollution.

Motor vehicles and their fuels are the greatest sources of ozone precursors and carbon monoxide. Any clean air program which does not require significant emissions reductions from these sources will not achieve clean air unless it requires draconian reductions from industrial and commercial sources. H.R. 99 requires very minimal reductions in emissions from cars and light duty trucks, and no reductions whatsoever from heavy trucks and buses. At the same time, H.R. 99 does not require drastic emissions reductions from non-mobile sources. Without both strict motor vehicle emissions standards and major stationary source reduction requirements, it is unlikely that most cities will achieve the emissions reductions needed to attain healthful air by the end of the 20th Century.

Air Pollution Officials Say H.R.99 Would "Severely Undermine" Effort

State and local air pollution control officials believe that the Group of Nine proposal (H.R. 99) is inadequate to achieve clean air because it would do little to restrict NOx, CO, and hydrocarbon emissions from cars, buses, and trucks. Last September, the State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO) responded to Sen. George Mitchell's request for their views on the proposal by writing:

"The seriously deficient mobile source and carbon monoxide provisions [in the Group of Nine proposal], if passed into law, would severely undermine our efforts to provide healthful air for the citizens of this nation.

"These [motor vehicle] emissions will increase in the early to mid-1990's. Unless all technologically-feasible measures are pursued, the serious air pollution problems that plague many of our cities today will continue into the next century. STAPPA and ALAPCO believe . . . that the Group of Nine proposal (June 1988) is insufficient to counter this escalating problem."

(STAPPA/ALAPCO letter to Sen. Mitchell, September 25, 1988.)

No Assurance Of Reductions In Vehicle Emissions Over The Next Decade

H.R. 99 assures practically no reduction in vehicle emissions in the 1990's. For instance, H.R. 99 would require all cars to meet a NOx standard of 0.7 grams per mile (gpm) in 1996. This standard will accomplish little, since 98 per cent of the 1988 light duty vehicles were already meeting that standard in certification tests.

In fact, 85 percent of 1988 light duty vehicles certified at the NOx, CO, and non-methane HC standards required by H.R. 99. This level of compliance is not required by H.R. 99 until 1995. Under H.R. 99, 100 percent of the cars would have until 1996 to meet its emissions reductions. In other words, H.R. 99 would allow auto companies seven more years to reduce emissions on just 15 percent of their cars. This is simply too little progress over too much time.

Auto makers would be given a full decade before all new cars would have to meet the inadequate standards. In the meantime, EPA would be barred from recalling any vehicles that do not meet these standards until 1998. Complex new hurdles to recalling excessively-polluting vehicles would be added to the Clean Air Act.

H.R. 99 fails to close two important loopholes in the existing motor vehicle control program. Vehicles would not be required to comply with emissions standards for their entire actual life, and manufacturers could continue to produce vehicles that do not meet emissions standards under rules which permit statistical manipulation of fleet emissions data to demonstrate compliance with standards. Finally, no new pollution controls are proposed for heavy trucks -- a growing source of urban smog and toxic air pollution.

Despite progress under the Clean Air Act, cars, buses and trucks remain the largest source of CO, NOx, and hydrocarbons. H.R. 99, by declaring further controls on tailpipe emissions off limits for the remainder of the century, will make it impossible for many areas to meet air quality health standards. In addition, the expected growth in vehicle emissions could lead to the future violation of health standards by cities that are currently meeting them.

H.R. 99 Deadlines Are Too Long

Under H.R. 99, EPA could approve plans for cities even though the plans clearly will not produce clean air by the deadlines. Moreover, EPA is allowed to exempt all other cities from the requirement to demonstrate timely clean up, simply by issuing a finding that the cities' air will not be clean until after 1997.

Under H.R. 99, areas have little incentive to try to meet clean up deadlines because the bill lacks meaningful deadline enforcement provisions. Cities which fail to meet their initial deadlines simply are reclassified into a new category with a further extended deadline for attainment. The only "remedy" provided for failing to meet health standards would be a requirement to adopt additional pollution controls that should have been implemented earlier. In short, H.R. 99 encourages areas to submit minimal control programs with unrealistic paper projections of future attainment rather than commit to an ambitious program of necessary pollution controls which will actually lead to the attainment of health standards.

Administrators Invited To Forestall And Weaken Control Requirements

State air pollution control officials have pleaded that Congress mandate specific pollution control measures to help the states meet federal health standards. H.R. 99 describes a number of seemingly mandatory pollution control requirements for the states to implement. These requirements, however, can be deferred or stopped by the exercise of administrative discretion or are so general that they can be weakened by bureaucratic definition.

**TOUGH CLEAN AIR LEGISLATION NEEDED
TO PROTECT PUBLIC HEALTH**

The state of the nation's air quality is abysmal, and worsening every year in many areas. The human and health care costs of smog are staggering, and we don't need to pay the price any longer. The American people are looking to you to solve this problem before it becomes a tragedy. The Clean Air Restoration Act, H.R. 2323, is the only bill that attacks smog at its source: emissions from motor vehicles and their fuels. H.R. 99 lets the auto industry off the hook by not requiring motor vehicle emissions reductions that the industry is -- already capable of achieving. We look forward to working with the Subcommittee to enact H.R. 2323 to make the 19 year-old promise of clean air a reality.

GROUP OF NINE V. ACTUAL CERTIFICATIO

LIGHT DUTY VEHICLES MEETING 0.25NMHC, 3.4 CO, 0.7 NOX

